In the Claims:

1. (Currently amended) A cellular wheel sluice constructed as an axial ~~blow through~~ blow-through sluice, particularly for dosing ~~secondary fuels,~~ a particulate material, comprising a supply chute (2) adapted to feed the particulate material and therebelow a cellular wheel (4) that is provided with radial cellular wheel webs (3) on a cellular wheel core (9) and that is arranged to rotate about a horizontal axis in a housing, which housing has a blow-in hole (10) and a blow-out hole (11) arranged in the housing below the horizontal axis of the cellular wheel within a rotational area of the cellular wheel webs (3) and positioned opposite each other in vertical side walls of the housing, characterized in that an injection nozzle (15) is integrated in the area of the blow-in hole (10), said injection nozzle being adapted to blow transport air successively into plural dosing chambers (5) respectively formed between successive neighboring ones of the cellular wheel webs (3), and in that the cellular wheel webs (3) are provided with gap seals (12) that are made of a material as hard as a metal and are positioned at radial outer ends of the cellular wheel webs with a radial spacing gap between each one of the gap seals and a cylindrical wall of the housing around the cellular wheel wherein radially outer edges of the gap seals are configured as respective shear-cutting edges that are oriented facing circumferentially forward in a rotation direction of the

cellular wheel, and further comprising a counter-cutting member with a counter-cutting edge arranged in the supply chute at a chute-bounding side wall thereof that is circumferentially downstream with respect to the rotation direction of the cellular wheel, wherein the counter-cutting edge is positioned relative to the shear-cutting edges and oriented circumferentially opposite the shear-cutting edges so as to cooperate with the shear-cutting edges to shear-cut particles of the particulate material between the counter-cutting edge and the shear-cutting edges.

2. (Previously presented) The cellular wheel sluice of claim 1, characterized in that the injection nozzle (15) is set-in coaxially and inwardly in a blow-in pipe socket (16) secured to the blow-in hole (10), said injection nozzle causing a reduction of the blow-in cross-section in the area of the blow-in hole (10) relative to the blow-in pipe cross-section.

Claims 3 to 9 (Canceled).

10. (Previously presented) The cellular wheel sluice of claim 1, characterized in that the blow-in hole (10) and the blow-out hole (11) are positioned axially opposite each other in the vertical side walls of the housing, and in

that a cross-sectional area of the blow-out hole (11) has about the cross-section of one of the dosing chambers (5).

11. (Previously presented) The cellular wheel sluice of claim 1, characterized in that the injection nozzle (15) is constructed as a pipe shape and comprises a nozzle opening (24) having a diameter corresponding, at the most, to one half of the median diameter of one of the dosing chambers.

12. (Currently amended) The cellular wheel sluice of claim 1, characterized in that the gap seals with the shear-cutting edges are constructed as separate ~~cutting edges (12)~~ components that are made of a spring steel or other low wear steel alloy and that [[they]] are exchangeably secured to the cellular wheel webs (3).

13. (Currently amended) The cellular wheel sluice of ~~claim 12,~~ claim 1, characterized in that ~~a counter cutting blade (13) is provided~~ the counter-cutting member is a counter-cutting blade arranged in the supply chute (2) parallel to the ~~cutting~~ shear-cutting edges (12) which rotatingly pass by the ~~counter cutting blade (13) with a small spacing therebetween and~~ counter-cutting edge in an opposing alignment.

14. (Previously presented) The cellular wheel sluice of claim 1, characterized in that the housing (1) is provided with

a wear bushing (21) on the cylindrical wall and is provided with a wear lining (14) on inner surfaces of the vertical side walls, and in that the wear bushing and the wear lining are made of a spring steel material or a low wear steel alloy.

15. (Currently amended) The cellular wheel sluice of ~~claim 12,~~ claim 1, characterized in that the cellular wheel webs (3) are secured to the cellular wheel core (9) so that the ~~cutting~~ shear-cutting edges (12) extend at a circumferentially skewed slant to the horizontal axis or with a slight helical shape about the horizontal axis.

16. (Currently amended) The cellular wheel sluice of ~~claim 13,~~ claim 1, characterized in that the ~~counter cutting blade (13)~~ counter-cutting edge is arranged at a circumferentially skewed slant to the horizontal axis and the cellular wheel webs are straight and parallel to the horizontal axis.

17. (Previously presented) The cellular wheel sluice of claim 1, wherein said radial spacing gap has a radial measure from 0.2 mm to 0.5 mm.

18. (Previously presented) The cellular wheel sluice of claim 1, wherein each one of the dosing chambers has a substantially trapezoidal, annular sector cross-sectional

shape, and the blow-out hole has a substantially trapezoidal, annular sector opening shape.

19. (Previously presented) The cellular wheel sluice of claim 18, wherein the opening shape of the blow-out hole has an area that approximately corresponds to an area of the cross-sectional shape of a respective one of the dosing chambers.

20. (Currently amended) [[A]] An axial blow-through cellular wheel feeder for feeding particulate bulk solid material, comprising:

a housing that comprises a cylindrical wall extending concentrically about a horizontal axis, and planar vertical side walls at axial ends of said cylindrical wall, wherein said cylindrical wall and said side walls bound a cylindrical space in said housing;

a bulk solid material supply chute that is adapted to feed the particulate bulk solid material and that communicates into said cylindrical space in said housing through a supply opening in said cylindrical wall;

a cellular wheel that comprises plural cellular wheel webs extending radially outwardly from a central wheel hub that is supported rotatably about said horizontal axis in said cylindrical space in said housing, and respective gap seals arranged respectively at radially outer edges of said cellular wheel webs, wherein respective dosing chambers are

respectively formed and bounded radially between said central wheel hub and said cylindrical wall and circumferentially between respective successive neighboring pairs of said cellular wheel webs, wherein said gap seals are made of a hard material that has a hardness equal to that of a metal, [[and]] wherein said gap seals are arranged to leave a radial spacing gap between each one of said gap seals and said cylindrical wall, and wherein respective radially outer edges of said gap seals are configured as respective shear-cutting edges that are oriented facing circumferentially forward in a rotation direction of said cellular wheel about said horizontal axis;

a counter-cutting member with a counter-cutting edge arranged in said supply chute adjacent to said supply opening at a chute-bounding side wall of said supply chute that is circumferentially downstream with respect to said rotation direction of said cellular wheel about said horizontal axis, wherein said counter-cutting edge is positioned relative to said shear-cutting edges and oriented circumferentially opposite said shear-cutting edges so as to cooperate with said shear-cutting edges to shear-cut particles of the particulate bulk solid material between said counter-cutting edge and said shear-cutting edges;

a blow-in hole that is provided below said horizontal axis in a first one of said vertical side walls;

a blow-out hole that is provided below said horizontal axis and axially across from said blow-in hole in a second one of said vertical side walls; and

an injector nozzle that is mounted to said housing at said blow-in hole and that is positioned and adapted to blow a stream of transport gas through said blow-in hole, a respective one of said dosing chambers in communication with said blow-in hole, and said blow-out hole in a blowing transport direction parallel to said horizontal axis so as to be adapted to transport the particulate bulk solid material out of said respective dosing chamber through said blow-out hole in said transport direction.

21. (Previously presented) The blow-through cellular wheel feeder according to claim 20, wherein said radial spacing gap has a radial measure from 0.2 mm to 0.5 mm.

22. (Previously presented) The blow-through cellular wheel feeder according to claim 20, wherein each one of said dosing chambers has a substantially trapezoidal, annular sector cross-sectional shape, and said blow-out hole has a substantially trapezoidal, annular sector opening shape.

23. (Previously presented) The blow-through cellular wheel feeder according to claim 22, wherein said opening shape of said blow-out hole has an area that approximately

corresponds to an area of said cross-sectional shape of a respective one of said dosing chambers.

Claim 24 (Canceled).

25. (Currently amended) The blow-through cellular wheel feeder according to ~~claim 24,~~ claim 20, further comprising ~~a counter-cutting member with a counter-cutting edge (13) arranged in said supply chute at a chute-bounding side wall thereof that is circumferentially downstream with respect to a rotation direction of said cellular wheel about said horizontal axis, and~~ a deflector scraper [[(20)]] protruding from said chute-bounding side wall into said supply chute above said ~~counter-cutting~~ counter-cutting member so as to be adapted to deflect away from said ~~counter-cutting~~ counter-cutting member the particulate bulk solid material fed through said supply ~~chute, wherein said counter-cutting edge is positioned along a circumference of said cutting knife edges and oriented circumferentially opposite said cutting knife edges so as to cooperate with said cutting knife edges for shear cutting.~~ chute.

26. (Previously presented) The blow-through cellular wheel feeder according to claim 20, further comprising a cylindrical wear layer on an inner surface of said cylindrical wall and a respective planar wear layer on respective inner surfaces of said vertical side walls of

said housing, wherein said wear layers are composed of a wear resistant steel alloy or a spring steel.

27. (Previously presented) The blow-through cellular wheel feeder according to claim 20, wherein said cellular wheel webs and said gap seals have a helical shape about said horizontal axis.

28. (Previously presented) The blow-through cellular wheel feeder according to claim 20, wherein said cellular wheel webs and said gap seals each respectively extend at a circumferentially skewed slant relative to said horizontal axis.